



Mr. Kevin Bilash  
USEPA Region III  
Land, Chemicals & Redevelopment Division 3LD20  
1650 Arch Street  
Philadelphia, PA 19103

November 30, 2022  
File No. 4862.10

Re: Marcus Hook Terminal  
Monthly Progress Report – November 2022  
Area of Interest 7  
Marcus Hook, PA

Dear Mr. Bilash:

This monthly progress report is being submitted on behalf of the Evergreen Resource Management Operations (Evergreen) for Area of Interest (AOI) 7 at the Marcus Hook facility. Note that on March 1, 2022, Sunoco Partners Marketing & Terminals L.P. changed its name to Energy Transfer Marketing & Terminals L.P. (Energy Transfer) and the facility changed its name from Marcus Hook Industrial Complex (MHIC) to Marcus Hook Terminal (MHT). On December 9, 2021, a Revised Interim Measures (IM) Workplan was submitted to the United States Environmental Protection Agency (USEPA) to address arsenic in the subsurface at AOI 7. The IM Workplan was approved by the USEPA on February 15, 2022. The discussion below provides an update on IM pre-design investigation (PDI) activities and Bench Scale Treatability Study activities.

**Activities completed this reporting period**

Bench Scale Treatability Study activities occurred in the treatability lab at Terra Systems, Inc. (Terra Systems) in Claymont, Delaware. Specifically, rebound test activities were completed in accordance with the Revised IM Workplan. The results of the treatability testing will be submitted in a future progress report once the Bench Scale Treatability Study is completed.

**Activities planned for the next reporting period**

The activities planned for the next reporting period (December 2022) include the following Treatability Study activities:

- Concluding rebound test activities in accordance with the Revised IM Workplan.

**Deviation from approved activities this reporting period**

There were no deviations from the approved activities for this reporting period.



**Deviation from approved schedule**

As requested by the USEPA during the August 15, 2022 meeting, Sanborn Head prepared a technical memorandum summarizing the Porewater Sampling Plan for additional porewater sampling at select locations that was provided in an attachment to the September 2022 Monthly Progress Report. On October 13, 2022, USEPA provided comments to Evergreen on the proposed Porewater Sampling Plan. On October 26, 2022, USEPA, Evergreen, and Sanborn Head met to discuss the USEPA comments and the overall scope of work for the Porewater Sampling Plan.

Based on the outcomes of that discussion, the additional porewater sampling event was postponed to a December 5, 2022 start date. A draft response to USEPA comments were verbally provided in a follow-up call with USEPA, Evergreen, and Sanborn Head on November 9, 2022 in relation to the scope of work for the additional porewater sampling activities. On November 14, 2022, the written details of the additional calculations were provided to the USEPA to address comments from the November 9, 2022 meeting. USEPA indicated on November 22, 2022 that they have additional comments to the draft response to comments/calculations provided. Based on the USEPA having additional comments, the planned December 2022 porewater sampling event will be postponed until January 2023 to allow time for the USEPA to provide the comments to Evergreen prior to conducting the field event.

The schedule for the major milestones is provided below and the detailed schedule is included in Attachment A. The schedule below reflects the tentative timeframe that Normandeau, the subcontractor assisting with the porewater sampling, has availability to complete additional porewater sampling activities. An exact timeline of porewater sampling activities will be provided once the scope of work has been finalized.

Task	Schedule
PDI Activities	3/2022 – 5/2022
Bench Scale Treatability Testing	5/2022 – 10/2022
Additional Porewater Sampling	1/2023
Pilot Testing	On pause
IM Performance Monitoring	On pause

Very truly yours,  
SANBORN, HEAD & ASSOCIATES, INC.



Colleen Costello, PG  
Senior Vice President

CSS/CC: css

**Attachments**

Attachment A – Interim Measures Implementation Schedule

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# Attachment A

## Updated Interim Measure Implementation Schedule

### Evergreen

### Marcus Hook, Pennsylvania

Task Name	Start	Finish	Q4			Q1			Q2			Q3			Q4			Q1			Q2			Q3		
			Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Submit IM Workplan to EPA	12/09/21	12/09/21			<div><div></div></div>																					
EPA Approval of IM Workplan	12/10/21	02/15/22			<div><div></div></div>																					
<div>Monthly Report to EPA</div>	01/31/22	08/31/23																								
January 2022 Monthly Report	01/31/22	01/31/22				<div><div></div></div>																				
February 2022 Monthly Report	02/28/22	02/28/22					<div><div></div></div>																			
March 2022 Monthly Report	03/31/22	03/31/22						<div><div></div></div>																		
April 2022 Monthly Report	04/29/22	04/29/22							<div><div></div></div>																	
May 2022 Monthly Report	05/31/22	05/31/22								<div><div></div></div>																
June 2022 Monthly Report	06/30/22	06/30/22									<div><div></div></div>															
July 2022 Monthly Report	07/29/22	07/29/22										<div><div></div></div>														
August 2022 Monthly Report	08/31/22	08/31/22											<div><div></div></div>													
September 2022 Monthly Report	09/30/22	09/30/22												<div><div></div></div>												
October 2022 Monthly Report	10/31/22	10/31/22													<div><div></div></div>											
November 2022 Monthly Report	11/30/22	11/30/22														<div><div></div></div>										
December 2022 Monthly Report	12/30/22	12/30/22															<div><div></div></div>									
January 2023 Monthly Report	01/31/23	01/31/23																<div><div></div></div>								
February 2023 Monthly Report	02/28/23	02/28/23																	<div><div></div></div>							
March 2023 Monthly Report	03/31/23	03/31/23																		<div><div></div></div>						
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July 2023 Monthly Report	07/31/23	07/31/23																						<div><div></div></div>		
August 2023 Monthly Report	08/31/23	08/31/23																							<div><div></div></div>	
<div>PDI</div>	03/07/22	06/30/22																								
PDI Mobilization	03/22/22	05/31/22																								
<div>Sediment and Porewater Sampling</div>	03/22/22	05/31/22																								
Field Mobilization	03/22/22	03/22/22																								
Collection of sediment samples and grab porewater samples	03/22/22	03/25/22																								
Collection of DGT porewater samples	03/22/22	03/23/22																								
Laboratory Data Analysis	03/28/22	04/29/22																								
Data Validation	04/26/22	05/10/22																								
Data Evaluation	04/18/22	05/31/22																								
<div>GW Elevation and GW Flow Evaluation</div>	03/25/22	06/30/22																								
Installation of Transducers	04/08/22	04/08/22																								
Deployment of Groundwater Flow Meter	05/24/22	05/24/22																								
Install stilling well	03/25/22	03/25/22																								
Data Collection	04/08/22	05/27/22																								

Task Name	Start	Finish	Q4			Q1			Q2			Q3			Q4			Q1			Q2			Q3		
			Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Data Evaluation	05/27/22	06/30/22																								
<div><div></div>Monitoring Well Installations, Soil Borings and Soil Sampling</div>	03/07/22	06/30/22																								
Obtain Access to Honeywell Property	03/07/22	05/09/22																								
Delaware Well Permits	03/21/22	04/01/22																								
Utility Clearance	03/25/22	03/25/22																								
Soil Borings, Well Installations and Soil Sampling	04/04/22	05/13/22																								
Laboratory Data Analysis	04/11/22	05/27/22																								
Data Validation	05/27/22	06/10/22																								
Well Development	04/07/22	05/13/22																								
Well and Boring Survey	05/24/22	05/24/22																								
Data Evaluation	04/11/22	06/30/22																								
<div><div></div>Groundwater Sampling</div>	05/24/22	06/30/22																								
Groundwater Sampling	05/24/22	05/27/22																								
Laboratory Data Analysis	05/27/22	06/10/22																								
Data Validation	06/10/22	06/23/22																								
Data Evaluation	06/10/22	06/30/22																								
<div><div></div>Bench Scale Treatability Test</div>	05/31/22	11/30/22																								
Baseline Characterization	05/31/22	06/13/22																								
Titration Test	06/10/22	06/13/22																								
<div><div></div>Reagent Screening</div>	06/14/22	08/26/22																								
Test Setup	06/14/22	06/14/22																								
Initial Test	06/17/22	08/08/22																								
Modification Test (If Needed)	06/30/22	08/08/22																								
Evaluation	07/11/22	08/26/22																								
<div><div></div>Rebound Test</div>	09/12/22	10/31/22																								
Reactor Setup	09/12/22	09/12/22																								
First Sampling and Replenishing	09/19/22	09/19/22																								
Second Sampling and Replenishing	09/26/22	09/26/22																								
Final Sampling	10/05/22	10/05/22																								
Evaluation	10/12/22	10/31/22																								
Bench-scale Study Report	11/01/22	11/30/22																								
<div><div></div>Additional Porewater Sampling</div>	On pause																									
Field Mobilization	↓																									
Collection of porewater samples																										
Laboratory Data Analysis																										
Data Validation																										
Data Evaluation																										
<div><div></div>Pilot Test</div>	On pause																									
Pilot Study Design	↓																									
<div><div></div>Pilot Study Implementation</div>																										
Permit																										
Injection Preparation																										
Injection Activities	↓																									

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